

AMENDMENTS TO THE CLAIMS

1 (canceled)

2 (canceled)

3 (currently amended) A substrate processing apparatus comprising:

- a substrate holding mechanism for holding a peripheral portion of a substrate;
- a base member having said substrate holding mechanism attached thereto, said base member facing a back at least one surface of the substrate held by said substrate holding mechanism;
- a rotatable shaft attached to a central portion of said base member;
- a first liquid supply nozzle for selectively supplying a chemical liquid or a first cleaning liquid to the back surface of the substrate held by said substrate holding mechanism from a first line;
- a switching device for switching the chemical liquid and the first cleaning liquid to be supplied to said first nozzle;
- a second liquid supply nozzle for supplying a second cleaning liquid to an inner surface of said substrate holding mechanism and an upper surface of said base member from a second line;
- ~~a gas supply nozzle for supplying a gas to a space between the substrate and said base member;~~
- a nozzle structure including said first liquid supply nozzle and said second liquid supply nozzle, said nozzle structure being disposed within said rotatable shaft;
- a first liquid discharge mechanism for discharging a liquid in said first line to a drain without supplying the liquid to the substrate; and
- a second liquid discharge mechanism for discharging a liquid in said second line to a drain without supplying the liquid to the substrate.

4-8 (canceled)

9 (currently amended) A substrate processing method comprising:

holding a substrate with a substrate holding mechanism with a holding force which is due to a centrifugal force caused by rotation of the substrate holding mechanism by a substrate rotation mechanism, thereby rotating the substrate;

supplying a treatment liquid to a desired portion of the ~~rotating~~ substrate to process the substrate while rotating said substrate holding mechanism at a first rotational speed~~said changing a rotational speed of the substrate holding mechanism~~; and

increasing or decreasing a rotational speed of the substrate holding mechanism ~~so as to cause rotational slipping of the substrate relative to the substrate holding mechanism~~from said first rotational speed to a second rotational speed at an acceleration such that an inertial force produced on a portion of the substrate at which said substrate holding mechanism is brought into contact with the substrate is greater than a static frictional force produced on the portion of the substrate at which said substrate holding mechanism is brought into contact with the substrate, thereby sliding and moving the portion of the substrate at which said substrate holding mechanism contacts the substrate.

10 (canceled)

11 (previously presented) The substrate processing method as recited in claim 9, further comprising stopping said supplying a treatment liquid simultaneously with or after said increasing or decreasing a rotational speed of the substrate holding mechanism.

12-20 (canceled)

21 (previously presented) The substrate processing method as recited in claim 9, wherein said supplying a treatment liquid comprises supplying the treatment liquid to a peripheral portion of the substrate to remove a film formed on the peripheral portion of the substrate.

22 (original) The substrate processing method as recited in claim 21, wherein the film to be removed comprises a film containing one of Cu, Co, Co alloy, Ta, Ta-N, W, W-N, Ti, Ti-N, Ni, Ru, P, B, and Mo, or a film having a plurality of layers each containing one of Cu, Co, Co alloy, Ta, Ta-N, W, W-N, Ti, Ti-N, Ni, Ru, P, B, and Mo.

23-29 (canceled)

30 (previously presented) The substrate processing apparatus as recited in claim 3, further comprising a scatter prevention cup disposed outside of a circumference of said substrate holding mechanism so as to encompass said substrate holding mechanism, said scatter prevention cup being movable in a vertical direction.

31-35 (canceled)

36 (currently amended) The substrate processing apparatus as recited in claim 3, further comprising a gas supply nozzle for supplying gas to a space between the substrate and said base member.

37 (previously presented) The substrate processing apparatus as recited in claim 3, further comprising a purge gas supply line for supplying a purge gas to a gap between said rotatable shaft and said nozzle structure.